CLAIMS

1. A method of stimulating neuronal growth or repair comprising exposing a target neuron or neuronal area to a solution of the metallothionein isoform MT-IIA.

2. A method according to claim 1 wherein said contact is by direct interaction of the target neuron or neuronal site with said solution.

3. A method according to claim 1 or 2 wherein said MT-IIA is naturally occurring human MT-IIA.

4. A method according to claim 1 or 2 wherein said MT-IIA is produced by chemical synthesis or by production in genetically manipulated cells or organisms.

5. A method according to claim 4 wherein said MT-IIA is recombinant human MT-IIA.

6. A method according to any one of claims 1 to 5 wherein said solution has a concentration of up to about 5μg/ml metallothionein in a neurologically acceptable carrier.

7. A method according to claim 6 wherein said solution has a concentration of about 5 μg/ml metallothionein in solution.

8. A method according to any one of claims 1 to 5 further including exposing said neuron or neuronal area to any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-IV.

9. A method according to claim 8 wherein said target neuron or neuronal area is exposed simultaneously to a combination of MT-IIA and any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-IV.

10. A method according to claim 8 wherein said target neuron or neuronal area is exposed sequentially to a combination of MT-IIA followed by any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-II.

11. A method according to claim 8 wherein said target neuron or neuronal area is exposed sequentially to a combination of any one of metallothionein isoforms selected from MT-I, MT-II, MT-IIA, MT-III and MT-IV.

12. A method according to any one of claims 1 to 11 wherein said neuron or neuronal area is located in the brain.

13. A method according to any one of claims 1 to 12 wherein said solution is administered to said neuron or neuronal area by any one or a combination of direct injection, intraperitoneal injection, oral administration or via genetically modified cells including stem cells.

14. A method of treatment of Alzheimer's Disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of any one of claims 1 to 13.

15. A method of treatment of Parkinson's Disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of any one of claims 1 to 13.

16. A method of treatment of motor neuron disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of any one of claims 1 to 13.

17. A method of treatment of head injury comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of any one of claims 1 to 13.

18. A therapeutic composition adapted for topical administration to an area of neuronal compromise said composition characterised by metallothionein isoform MT-IIA as an active ingredient.

19. A composition according to claim 18 wherein said active ingredient is combined with any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-IV.

20. A composition according to claim 18 or 19 wherein said metallothionein is naturally occurring human MT-IIA.

21. A composition according to any one of claims 18 or 19 wherein said metallothionein is produced by chemical synthesis or by production in genetically manipulated cells or organisms.

22. A composition according to claim 21 wherein said metalliothionein is recombinant human MT-IIA.

23. A composition according to any one of claims 18 to 22 further including a neurologically acceptable carrier particularly adapted for a topical administration to an area of neuronal compromise.

24. A composition according to claim 23 adapted for direct topical application.

25. A composition according to claim 23 adapted for intraperitoneal or intravenous administration to effect exposure of neurons by a non-topical route

26. A method according to any one of claims 1 to 17 substantially as hereinbefore described with reference to the examples.

27. A composition according to any one of claims 18 to 25 substantially as hereinbefore described with reference to the examples.